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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		
09/975,806	10/11/2001		ATTORNEY DOCKET NO.	CONFIRMATION NO.
26418 7 REED SMIT	7590 05/15/2002	Jeffrey F. Krizan	ITOCHU P-1 / 500921.20001	9185
375 PARK AV	ENUE	• •	EXAMINER	
NEW YORK, NY 10152			MANLOVE, SHALIE A	
			ART UNIT	PAPER NUMBER
			1755 DATE MAILED: 05/15/2002	5

Please find below and/or attached an Office communication concerning this application or proceeding.

		Applicati n No.	Applicant(s)	
			1	
Office Action Summary		09/975,806 KRIZAN, JEFFREY F.		
		Examiner	Art Unit	
	- MANUNO DATE AND	Shalie A. Manlove	1755	
Peri a for R	• •			
- Extensions after SIX ( - If the perior of NO perior of Pailure to a camed patents)	TENED STATUTORY PERIOD FOR REPLY ILING DATE OF THIS COMMUNICATION. Is of time may be available under the provisions of 37 CFR 1.130 (6) MONTHS from the mailing date of this communication. Od for reply specified above is less than thirty (30) days, a reply od for reply is specified above, the maximum statutory period wire reply within the set or extended period for reply will, by statute, or received by the Office later than three months after the mailing of tent term adjustment. See 37 CFR 1.704(b).	6(a). In no event, however, may a reply be tin within the statutory minimum of thirty (30) day II apply and will expire SIX (6) MONTHS from Cause the application to become ARANDOME	nely filed s will be considered timely. the mailing date of this communication.	
Status				
1	esponsive to communication(s) filed on	<del></del>		
		s action is non-final.		
3) Sir clo Disp sition o	nce this application is in condition for allowar osed in accordance with the practice under <i>E</i> of Claims	nce except for formal matters, pr ix parte Quayle, 1935 C.D. 11, 4	osecution as to the merits is 53 O.G. 213.	
4)⊠ Cla	$\lim(s)$ 1-22 is/are pending in the application.			
4a) (	Of the above claim(s) is/are withdraw	n from consideration.		
	im(s) is/are allowed.			
6)⊠ Clai	im(s) <u>1-22</u> is/are rejected.			
7)∐ Clai	im(s) is/are objected to.			
8)∐ Clai	im(s) are subject to restriction and/or	election requirement.		
Application F		1		
9)⊠ The :	specification is objected to by the Examiner.			
10)☐ The d	drawing(s) filed on is/are: a)□ accepte	ed or b)⊡ objected to by the Exan	niner.	
	pplicant may not request that any objection to the o			
		s: a)☐ approved b)☐ disapprov		
If a	approved, corrected drawings are required in reply	to this Office action.		
12) The c	oath or declaration is objected to by the Exar	miner.		
Priority under	r 35 U.S.C. §§ 119 and 120			
13)☐ Ackr	nowledgment is made of a claim for foreign p	priority under 35 U.S.C. § 119(a)	-(d) or (f).	
	l b)☐ Some * c)☐ None of:	,	· · · · · · · · · · · · · · · · · · ·	
1.	Certified copies of the priority documents h	nave been received.		
	Certified copies of the priority documents h		n No.	
3.	Copies of the certified copies of the priority application from the International Burea	documents have been received	in this National Stage	
	ne attached detailed Office action for a list of	the certified copies not received		
14) Ackno	owledgment is made of a claim for domestic p	priority under 35 U.S.C. § 119(e)	(to a provisional application).	
a) 🔲 🏾	The translation of the foreign language provis owledgment is made of a claim for domestic p	sional application has been rece	ived	
Attachment(s)				
2)  Notice of Dr. 3)  Information	eferences Cited (PTO-892) raftsperson's Patent Drawing Review (PTO-948) Disclosure Statement(s) (PTO-1449) Paper No(s) 4	5)   Notice of Informat De	PTO-413) Paper No(s) tent Application (PTO-152)	
S. Patent and Trademark TO-326 (Rev. 04-0	c Office Office Acti a	n Summary	Part of Paper No. 5	

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#### **DETAILED ACTION**

## Specification

1. The disclosure is objected to because of the following informalities: On page 8, line 25, the term "red" should be --read --.

Appropriate correction is required.

## Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- 3. Claim 15 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Specification (page 5, line 24- page 6, line 3) teaches the limitation of claim 15 to be the properties of aqueous slurry, and not the powder as claimed.
- 4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claims 12, 19 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12, line 3, the term "fumed silica esters" is vague and unclear.

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Explanation is required.

In claim 19, line 2, and claim 22, line 1, the term "coatings" should be omitted because it is not a substrate.

Appropriate correction is required.

In claim 15, line 1; dependency should be to claim 14 instead of claim 13.

Appropriate correction is required.

## Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 7. Claims 1, 3-4, 7, 10, are rejected under 35 U.S.C. 102(b) as being anticipated by Kreth et al (US 4885034).

Kreth discloses a method of making a composite titanium dioxide pigment with barium sulfate, which can be in a powder (col. 1, lines 10-21; col. 2, line 21-25), the composition of barium sulfate would be 1 to 25% or preferably 5 to 15% by weight, inherently Kreth teaches titanium dioxide would be 99 to 75% or 95 to 85% by weight of the composition (col. 2, line 35-39). Kreth also discloses the pigment composition to further comprise a dispersant (col. 3, line 24-25 and 35-38) of which the composition varies from 0.5 to 20% (col. 3, lines 43-46).

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8. Claims 1-3, 5, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Alessandroni (US 2212629).

Alessandroni teaches a pigment composition of titanium dioxide and barium sulfate, the barium sulfate is natural barytes or blanc fixe (page 3, col. 5, lines 5-8) and is a titanium dioxide stabilizer or anti-agglomerate effective amount (col. 5, line 4-31; col. 6, line 40-51), the reference also teaches the pigment in the form of slurry.

## Claim Rejections - 35 USC § 103

- 9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 10. Claims 8-9, 11, 13, 16, and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kreth et al (US 4885034).

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Kreth discloses overlapping percent weight ranges of the barium sulfate pigment composition and dispersant. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976).

11. Claims 5-6, 13-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kreth et al (US 4885034) as applied to claim 1 above, and further in view of Dietz (US 3549396).

Dietz teaches a pigment in the form of slurry (col. 3, lines 42-44, 51-52) and the pigment contains total solids content of 85 % or less (col. 2, lines 70-73) wherein the pigment is any titanium dioxide pigment including those mixed with barium sulfate.

It would have been obvious to one of ordinary skill in the art to prepare pigment slurry as taught by Dietz using the pigment of Kreth. The resulting slurry composite overlaps that which is claimed, therefore one of ordinary skill would expect the viscosity, sieve residue and temperature to overlap those claimed absent any showing to the contrary. With respect to the pH, all indications are neutral; therefore pH must be 7.

It would also have been obvious to one of ordinary skill in the art to prepare the composition in the form of slurry, of which would display the properties of pH and viscosity to produce a freeflowing, anti-agglomerate high solids content pigment as taught by Dietz.

In addition, it is notoriously well known that the composite titanium dioxide pigment with barium sulfate is used as a pigment that enhances opacity and brightness for substrates such as

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as paper and plastic. Therefore, it would have been obvious to one of ordinary skill to add

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opacifying effective amounts of the taught pigment to paper, plastic or coatings.

13. Claims 11,12, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kreth (US 4885034) in view of Alessandroni (US 2212629).

Alessandroni teaches a dispersant from about .2 to 5.0 percent by weight (col. 2, line 60-col. 3,

line 41).

It would have been obvious to one of ordinary skill in the art to use Kreth's pigment composition

with Alessandroni's additive in order to enhance the anti-agglomerate effect of the pigment

composition.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shalie A. Manlove whose telephone number is (703) 308-8275.

The examiner can normally be reached on M-F 8:00- 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mark L. Bell can be reached on (703) 308-3823. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 872-9310 for regular

communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 308-0661.

halie A. Manlove

Examiner

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May 10, 2002

C. MELISSA KOSLOW PRIMARY EXAMINER